What is Advanced Prostate Cancer?
Prostate cancer is often grouped into four stages.

• **Stages I & II:** The tumor has not spread beyond the prostate. This is often called “early stage” or “localized” prostate cancer.

• **Stage III:** Cancer has spread outside the prostate, but only to nearby tissues. This is often called “locally advanced prostate cancer.”

• **Stage IV:** Cancer has spread outside the prostate to other parts such as the lymph nodes, bones, liver or lungs. This stage is often called “advanced prostate cancer.”

When an early stage prostate cancer is found, it may be treated or placed on surveillance (watching closely). If prostate cancer spreads beyond the prostate or returns after treatment, it is often called advanced prostate cancer.

Stage IV advanced prostate cancer is not “curable,” but there are many ways to control it. Treatment can stop advanced prostate cancer from growing and causing symptoms.

Types of Advanced Prostate Cancer

• **Biochemical Recurrence:** Prostate Specific Antigen (PSA) level has risen after the first treatment(s) with no other sign of cancer.

• **Castration-Resistant Prostate Cancer (CRPC):** Prostate cancer is growing or spreading even though testosterone levels are low from hormone therapy.

• **Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC):** Prostate cancer growth is found even after the hormone (testosterone) is blocked in patients who have had biochemical failure. This is found by a rise in the PSA level, while the testosterone level stays low. Imaging tests do not show signs the cancer has spread.

• **Metastatic Prostate Cancer:** Cancer cells have spread beyond the prostate. Cancer spread may be seen on imaging studies and may show the cancer has spread.

• **Metastatic Hormone-Sensitive Prostate Cancer (mHSPC):** Cancer has spread past the prostate into the body and the patient has not yet had hormone therapy. This means that male sex hormones, such as androgens like testosterone, can be blocked or stopped to slow cancer growth.

• **Metastatic Castration-Resistant Prostate Cancer (mCRPC):** Cancer has been treated with androgen ablation therapy lowering testosterone levels; but, PSA levels keep rising and/or metastatic spots are growing.

Signs of Advanced Prostate Cancer

Men with advanced prostate cancer may or may not have symptoms. Symptoms depend on the size of new growth and where the cancer has spread in the body. With advanced disease, mainly if you have not had treatment to the prostate itself, you may have problems passing urine or see blood in your urine. Some men may feel tired, weak or lose weight. When prostate cancer spreads to bones, you may have bone pain. Tell your doctor and nurse about any pain or other symptoms you feel. There are treatments that can help.

How is Advanced Prostate Cancer Treated?
The goal of advanced prostate cancer treatment is to shrink the tumor(s) and control symptoms. Which treatment to use, and
when, will depend on discussions with your doctor. It is best to talk to your doctor about how to handle side effects before you choose a plan. There could be many treatment choices to talk about for advanced prostate cancer.

**Hormone Therapy**

Hormone therapy is a treatment that lowers a man's testosterone, or hormone, levels. This therapy is also called androgen deprivation therapy (ADT). Testosterone, a male sex hormone, is the main fuel for prostate cancer cells, so blocking it may slow the growth of those cells. Hormone therapy slows prostate cancer growth in men when prostate cancer has metastasized (spread) away from the prostate or returned after other treatments. It may also be used to shrink a local tumor that has not spread. There are many types of hormone therapy for prostate cancer treatment, such as drugs and surgery. Your doctor may suggest a variety of ADT medication therapies over time. Types of hormone therapy are:

- **Orchiectomy (surgery to remove the testicles).** This surgery, also called castration, removes the testicles to stop the body from making testosterone. It is a simple surgery where the patient can go home the same day. It is rarely used as a treatment choice in the United States.

- **Agonists (analogs).** LHRH/GnRH agonists are drugs that lower testosterone levels. Some types are Goserelin, Histrelin, Leuprorelin and Triptorelin. They are given as shots or as small pellets placed under the skin. Based on the drug used, they are given from once every one, three or six months. Men who cannot or do not wish to have surgery to remove their testicles may choose agonist drugs.

- **Antagonists.** These drugs also lower testosterone, but more quickly. Degarelix is an LHRH or GnRH antagonist given as a monthly shot under the skin for advanced prostate cancer. Men who cannot or do not wish to have surgery to remove their testicles may choose antagonist drugs.

- **Anti-androgens.** These drugs block testosterone by preventing the testicles from receiving the message to release testosterone. Some types of anti-androgen drugs are Bicalutamide, Flutamide and Nilutamide. They are given as a daily pill. Using anti-androgens a few weeks before, or during, LHRH therapy may reduce “flare ups.” Anti-androgens are also used after surgery or castration when hormone therapy stops working.

- **CAB (combined androgen reducing treatment, with anti-androgens).** This method blends castration (by surgery or with the drugs described above) and anti-androgen drugs. The treatment blocks testosterone and stops it from binding to cancer cells.

- **Androgen synthesis inhibitors.** These drugs stop other parts of your body (and the cancer itself) from making more testosterone and its metabolites. Abiraterone acetate is a drug you take as a pill and is taken with a steroid called Prednisone. Men newly diagnosed with mHSPC or men with mCRPC may choose this therapy.

- **Androgen receptor binding inhibitors.** These drugs block testosterone from linking to prostate cancer cells (like anti-androgens). Apalutamide and Enzalutamide are drugs taken as a pill. You do not need to take a steroid with this drug. These drugs may be used in men with newly diagnosed mHSPC or mCRPC before or after chemotherapy.

There are many benefits and risks to each type of hormone therapy so be sure to talk with your doctor so you know what is best for you.

**Chemotherapy**

Chemotherapy drugs can slow the growth of cancer, reduce symptoms and extend life. Or, it may ease pain and symptoms by shrinking tumors. The main types of chemotherapy drugs are Cabazitaxel and Docetaxel. Chemotherapy is useful for men whose cancer has spread to other parts of the body.

**Immunotherapy**

Immunotherapy uses the body's immune system to fight cancer. It is a choice for men with mCRPC who have no symptoms or only mild symptoms. If the cancer returns and spreads, your doctor may offer a cancer vaccine to boost your immune system so it can attack the cancer cells. Immunotherapy may be given to mCRPC patients before chemotherapy or it may be used along with chemotherapy. Prostate cancer immunotherapies are still being studied. The main type of immunotherapy drug is Sipuleucel-T.
Advanced Prostate Cancer Treatment

Combination Therapy

There are also many drug combinations for patients with mCRPC. Your doctor may suggest some of the options below based on your symptoms:

- Minor or no symptoms | Options include Abiraterone + Prednisone, Enzalutamide, Docetaxel, or Sipuleucel-T may be offered.
- Cancer that’s spread to bones | Options include Abiraterone + Prednisone, Enzalutamide, Docetaxel, Radium-223.
- Other treatments did not work well | Options include Abiraterone + Prednisone, Ketoconazole + Steroid, Radionuclide Therapy.
- Options for men who have taken Docetaxel | Options include Abiraterone + Prednisone, Cabazitaxel or Enzalutamide, or often Radium-223 can help with bone pain.

Bone-targeted Therapy

Men with prostate cancer that has spread to the bones may get skeletal-related events (SREs.) SREs include fractures, pain and other problems. Two drugs that can stop the cancer and reduce SRE’s are Denosumab and Zoledronic Acid. Radiopharmaceuticals are drugs with radioactivity. They can be used to help with bone pain from metastatic cancer. Some are called Strontium-89 and Samarium-153. Radium-223 may also be used for men whose mCRPC has spread to their bones. It may be offered when ADT is not working. It gives off small amounts of radiation that go to the exact parts where cancer cells are growing.

Calcium and/or Vitamin D are also used to help protect your bones. They are often urged for men on hormone therapy to treat prostate cancer.

Radiation

Radiation uses high-energy beams to kill tumors. Prostate cancer often spreads to the bones. Radiation can help ease pain or prevent fractures caused by cancer spreading to the bone.

For all treatments, it is of great value to ask your doctor about your choices with a skilled health care provider.

Questions to Ask Your Doctor

- Which treatment options do you suggest for me, and why?
- What are the pros/cons of each treatment?
- What side effects should I expect, and what should I do to handle side effects?
- Can you put me in touch with other patients who have received the treatment you suggest for me?
- Will my health plan cover the costs of treatment, or can you help me get financial aid?
- Will I need extra help from my spouse, partner or a friend during or after treatment?
- How can a clinical trial help me, and what trials should I keep in mind?
- What else can I do to stay healthy?

About the Urology Care Foundation

The Urology Care Foundation is the world’s leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts.

To learn more, visit the Urology Care Foundation’s website, UrologyHealth.org/UrologicConditions or go to UrologyHealth.org/FindAUrologist to find a doctor near you.

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For copies of printed materials about Prostate Cancer and other urologic conditions, visit UrologyHealth.org/Download or call 800-828-7866.